

Gunong Tahan and Gunong Riam

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With plates I—IV.

So little has been written about the mountains of the Malay Peninsula that there is small reason to give any excuse for the following pages concerning the two highest eminences in the country, Gunong Tahan on the borders of Pahang and Kelantan, and Gunong Riam, better known as Gunong Kerbau, on the borders of Pahang and Perak. The paper is the outcome of a recent ascent of Gunong Riam, and the opportunity of comparing it with Gunong Tahan, which I ascended in 1906, and other peaks that I have visited in the Malay States.

The height of these two mountains was in 1906 believed to be:—Gunong Riam 7160 feet: Gunong Tahan 7050 feet, but the latest determination for Gunong Tahan makes it 7186 feet and therefore higher than Gunong Riam. For this figure I am indebted to the Surveyor-General, Col. Jackson.

I may as well say at once that no claim to "mountaineering" adventures is put forward in this paper. After having ascended four of the highest peaks in the country I know that the journey up any one of them is best described as a rather stiff up-hill walk with an occasional scramble among the thick vegetation. I have not yet seen one place that cannot be easily negotiated. The Saddleback on Snowdon and the Striding Edge on Helvellyn are more thrilling than anything I have seen on the Peninsular Mountains. I expect the limestone hills, however, as being capable of affording any amount of climbing exercise, but they can hardly be called mountains, and generally speaking, little is gained by climbing them. I shall never forget my feelings when once invited to go up a vertical cliff of limestone clinging to one slender creeper. Recollecting that the nearest hospital was five days journey away, I declined.

It has been my practice when travelling in the Peninsula to attend strictly to my own work and to avoid giving way to the temptation of dabbling in scientific subjects other than my own. This is because I have no reason to suppose that a geologist's zoological or botanical observations are one whit more valuable than a zoologist's or botanist's geological observations. Therefore, beyond an occasional remark, the accuracy of which is not guaranteed, concerning the fauna and flora, I have little to say of a scientific nature; but I believe that a plain narrative of the journeys will prove to be of some interest. The determination of heights of peaks also has been left to those best qualified to give an opinion on the subject, and I have therefore refrained from burdening myself with a heavy theodolite.

GUNONG TAHAN.

Gunong Tahan has been, and perhaps still is to a certain extent, wrapped in the mantle of romance. This is not peculiar to Gunong Tahan alone, however, of the features of northern Pahang, for there was once a strong belief in the existence of a mountain chain between Pahang and Kelantan that trended east and west, of which Gunong Tahan was a part; and as the belief in this range crumbled away, so did the supposed height of Gunong Tahan, originally, if I remember rightly, stated as about 20,000 feet, descend rapidly down the scale, until now it is known that it is only a little over 7,000 feet.

Nevertheless, Gunong Tahan has always been an attraction for travellers, probably because of the Malay stories of the difficulties caused by Jins to prevent anyone reaching the top, and in 1905 certainly, perhaps earlier, the summit was reached. I say perhaps earlier than 1905, because in 1902 Mr. John Waterstradt claimed to have ascended the mountain (vide this Journal No. 37, 1902, pp. 3—27), and I, for one, am not prepared to say that his claim is unfounded; but unfortunately the record of his journey is hard to follow. Several men have attempted to ascend Gunong Tahan—one, H. M. Becher, lost his life in the Tahan River, while another suffered severe privations and was forced to turn back, narrowly escaping disaster. But the size of Gunong Tahan compared with the great mountains of the world, and the facilities given by the vegetation, are such that its ascent can hardly be accounted a feat of mountaineering. The unavoidable difficulties met with are those of transport of baggage, and it is the writer's opinion that the only display of pluck was shown by the leader of the 1905 expedition, who, although about to retire, and in none too good health, determined to attempt the ascent before leaving the country, an attempt that was defeated by serious illness on the journey from the Tahan River to the ridge of Gunong Tahan itself.

If we consider Mr. Waterstradt's claim as a separate question, the honour of first ascending Gunong Tahan belongs to certain Malays with the 1905 expedition, Che Nik, Mu'min, Mat Aris, and Bulang (for an account of this expedition see Journal F.M.S. Museums, Vol. iii, 1908). I met these men in the following year and one of them, Bulang, guided me to the top.

In 1906, thanks to the timing of the attempt, the lightness of the baggage, the willingness of the Malays with me, and the well-worn paths, the ladders and the huts of the 1905 expedition and a still more recent party headed by Mr. J. C. Sugars, the ascent of Gunong Tahan was made without any serious difficulty being encountered or any hitch occurring with the men. The ascent was, in fact, a picnic.

Starting from Kuala Lipis, I soon reached Kuala Tembeling, where I interviewed the genial Penghulu, Penglina Kakap Hussein, and obtained through him the services of three Tem-

beling Malays for the journey. After ascending the Tembeling River for two days the Kuala of the Tahan River was reached and the compact little expedition disposed itself in a dug-out to face the laborious business of ascending the Tahan River. The three Malays were ample to manage the boat and to carry up the mountain sufficient food to sustain the whole party for some days. The baggage consisted of a few cooking utensils, a quantity of plain food, a thin jungle mattress, blanket and mosquito-net, and various spare garments, all wrapped up in three light waterproof sheets, making three convenient bundles. The men's rice, on which I claimed the right to draw, was included with the other food. The three bundles of baggage were placed on a small bamboo deck in the dug-out, and I made myself as comfortable as possible among them. The absence of any firearms was the cause of some expostulation from Kakap Hussein and the men, who assured me that there were many enemies to be encountered, including dragons.

The three Malays with me were Bulang, the guide, Mat Jeher, and Mat Riflin. Bulang was a short cheerful little fellow who always looked on the bright side of things. Mat Jeher was of a different mould, not particularly pleasant to look upon, he was intensely ignorant and therefore superstitious. He had not been up the mountain before and was obviously very perturbed in his mind about the fate that would overtake him. The third man, Mat Riflin, was, and still is, the pleasantest Malay that I have ever met. He was then about 24 years of age and had received sufficient education to discuss the works of Abdullah and the literature described as "Malay Readers."

The expedition, with a leader who knew enough to recognise the wisdom of being led, began the journey up the Tahan River on the 11th of May. The Tahan River is not the most navigable river in the world, and although in Europe it would not attract notice on that account, because no one would attempt to navigate it, being of much the same nature as a rocky trout stream in mountainous country, here, in the Malay Peninsula, what might be held out in the United Kingdom as a lure to trippers, become objectionable features that must be surmounted if one would proceed. There is one long still reach; the rest is all rapids, nothing really bad in the way of rapids, nothing to compare with the rapids in the Tembeling above Kuala Tahan for instance, but still enough to necessitate frequent unloading of baggage and hauling the boat over rocks. What the distance to Kuala Teku, where one leaves the boat, may be, I do not know, but it took our lightly equipped party three days to arrive there. The dryness of the season may have made our progress slower than it might have been otherwise.

Apart from the beauty of the Tahan River, flowing over its rocky bed through an avenue of magnificent jungle trees, two things associated with it have left a strong impression on my memory. One was Jeher's nightmares. On our way upstream we slept in little sheds built by gutta-hunters. They were most conveniently

placed, and as there were no mosquitos, the inability to hang up a net inside them did not matter. But we were closely packed, and when Jeher suddenly leapt up the first night, yelling "we're sinking, we're sinking, Allah help us, we're lost entirely" or words to that effect, we all woke up in alarm. But only that once. Jeher had nightmares every night afterwards, being chased by dragons, crushed by irate Jins, or falling over precipices, but he got no sympathy. The first yell was the signal for an onslaught by the remainder of the party that must have made his waking dreams very realistic.

The other remarkable thing about the Tahan River is that some one once announced he had counted the rapids and made them 99. This makes the head swim with wonder, first that anyone should think of counting the rapids at all, secondly, how he found out where one rapid ended and another began, and thirdly why he did not make the number 100. There is a story that another traveller shot a gibbon on the banks of the Tahan River and was punished by the Jins with madness which caused him to take his clothes off (where he took them off, or when, is not stated). Perhaps the counter of rapids committed a similar crime and was punished by being afflicted with a hypersensitive conscience which forbade him to reach the country.

Having arrived at Kuala Teku we found two men belonging to a party of Survey Coolies who had started up the mountain that day with a Trigonometrical beacon to be erected on the summit. One of the men left behind at the Kuala was suffering from dysentery. Fortunately I had a few tins of milk with me which I left with him, and, whether it was the milk that cured him or not, was glad to find on my return that he was well. We slept the night at Kuala Teku, and on the following morning started up to the first camp. This was a very short march, and I am convinced that the ascent of the mountain by this route could be done in shorter time by going farther the first day; but it had become the recognised thing to halt after only three hours climb, the excuse being water difficulties, and I was not in a position then to tell the men that we could reach water farther on.

The ascent to the first camp, where there was a large shed, erected by the 1905 expedition, is steep and somewhat slippery. This was the cause of an amusing and unusual sight. The survey coolies who had gone ahead of us had been warned that they should wear boots on account of the bare rocks on the high plateau-land of the range. They started with boots, but floundered about to such an extent on this soft slippery ground that they took them off, and, instead of carrying them with them, left them, hanging in the trees, a piece of folly that they bitterly regretted when they reached the top of the range. One man, I learned, was so overcome by having to carry an iron support while walking unshod over bare rocks, with abundant sharp quartz crystals, that he sat down and wept. I remember a similar occurrence near Kuantan, when a Malay whom I

was trying to persuade to cut down a tree, work he had been hired to do, sat down and burst into tears, telling me that the axe was hurting his hands.

The jungle as far as the first camp seemed to be much the same as the jungle below, except for the abundance of a fine palm with broad leaves, useful for building huts. These the Malays called *Pokok Dongkok*. At the first camp, however, situated on the top of a spur, there was a marked change in the vegetation, things looking like conifers making their appearance. I have seen similar plants up other mountains in the States.

The view from the first camp was very fine. One could look over the broad tract of lowly land drained by the Pahang River and also over the belt of hilly land formed by the great outcrop of quartzite and conglomerate, of which the Tahan Range is part. Far away could be seen Gunong Sinyum, the huge limestone hill on the left bank of the Pahang River. Looking towards Gunong Tahan, big cliffs were visible which I was told by Bulang were on "Gunong Gedong." I passed over no other mountain on my way to Gunong Tahan and gathered on my return that the name was merely a nickname bestowed by Malay coolies on part of Tahan, on account of its shape. The mention of this name as belonging to a distinct mountain unfortunately led me to a serious misconception as to the lay of the land at the time of my visit.

After a comfortable night, broken only by the usual onslaught on Jeher, we set out again, plunging down into a ravine and rising on the other side to a long ridge separating the valley of the Teku, and, I believe, the Ulu of the Tahan River. We had to walk along this ridge to reach the elevated plateau-land of the range, some of which we could now see. How long this ridge is I hesitate to say, knowing how easy it is to exaggerate. Perhaps two miles would be near the figure, and were it not for the vegetation, I can quite believe that the passage might be a thrilling experience. The view was magnificent. On the right was a great curtain of vegetation in many hues of green falling away from the ridge with billowing undulations. On the left was the precipitous valley of the Teku with vertical cliffs that gave the impression of a huge canyon. On the other side of the valley was a great stretch of high, but plateau-like country of which Gunong Ulu Kechau is, I believe part. The valley of the Teku, as seen from the ridge, and from the high land beyond, is a sight of which I have never seen the equal in the Peninsula. The cliffs, the great depth of the canyon, and the waterfall at its head, mark it as something distinct from all the other valleys that I have seen during my travels in the Malay States, and it has always been a matter of regret that when I saw it I had no camera with me. It would be difficult to do justice to the scene, however, even with a camera. The rough sketches on Plate II will perhaps convey some idea of it.

At the end of the ridge a short scramble up a cliff brought us to the plateau-land. Here we left the big jungle behind us and found

ourselves in new surroundings. Low shrubs, the larger ones showing the influence of the strong winds, bare rock, and here and there a thin covering of peat, gave the impression of moorland, but in place of heather were strange bushes and the smaller plants were pitcher-plants, orchids and other things that I will not venture to name. One comon orchid had a small pale-green flower, and I was much taken with a large bright yellow flower that I learned afterwards was a rare orchid found previously on Gunong Bubu. I do not remember seeing any rhododendrons, but as I would only be likely to notice the blossoms, there may have been hundreds of bushes.

From the plateau we had a good view of Gunong Tahan (Fig. 1, Plate III) with fair sized trees in the shelter of a depression in the foreground. This I noticed elsewhere on this journey: that in gullies where the strong winds could not be felt the vegetation was bigger. The posts seen on the left of the sketch were put up by the 1905 expedition.

Leaving the plateau-land we dropped into the valley of the Teku above the waterfall and followed up the stream, jumping from boulder to boulder, until we arrived at a big pool at an elevation of about 5000 feet, where the Teku was joined by a tributary. This was immediately below the ridge leading to the summit of the mountain, and here we camped for the night. I enjoyed a delightful bathe in the cold water of the pool, but Mat Riflin was the only one of the Malays to join me.

The following morning a short climb brought us to the top of the ridge of Gunong Tahan. There is a little flat land even on the top of this ridge, but I doubt if it could be utilized. From the summit we could see another big mountain to the north, afterwards identified as Gunong Ulu Kamua, and to the west, far below us, a range of limestone hills that I judged must be the limestone hills marked on the Royal Asiatic Society's map in the Ulu of the Tanun. As it was evident that a clear view of the whole Tahan Range, or nearly the whole of it, could be obtained from these hills (the Cherual limestone hills, *vide* the Geology and Mining Industries of Ulu Pahang, Plate IV) I determined to visit them later on.

During the return journey to the Kuala of the Teku my men made a collection of the abundant quartz crystals that one finds scattered over the surface and in veins in the rock. They call them "*intan*," and it is probable that these sparkling, but worthless stones, seen long ago by some forgotten Malay or aboriginal, are partly responsible for the Malay notion that the Jins on Gunong Tahan guarded a treasure of precious stones and gold. I might remark in passing that I have seen in the Ulu of the Tembeling a Jin who once lived on Gunong Tahan, but who was hurled down and turned into stone by the presiding Jin for insubordination.

THE TAHAN RANGE AS SEEN FROM THE CHERUAL LIMESTONE HILLS.

In July of 1906 I was able to visit the Cherual limestone hills, seen from the summit of Gunong Tahan. The journey up the S.

Tanun was made in a dug-out with a crew of Malays recruited in the neighbourhood of Kuala Tanun. This crew was the worst I have ever had. We arrived at our destination without serious mishap, however, and I landed at the little-known Kampong Cherual, not far from the Kelantan border. It consisted at that time, as far as I could discover, of only one house, therefore it was an easy matter to find the oldest inhabitant. He was an old, but still active Malay named Yusuf bin Sleiman, who had, he said, lived there for over twenty-five years. It was clear then that he was just the sort of man I wanted to tell me the names of the mountains and the course of the rivers in the neighbourhood, so I persuaded him to show me a way up the north end of the Cherual limestone hills to a spot where we had a magnificent view of the Tahan Range, and where I obtained the hill-sketch shown in Plate 1.

The names shown in this hill-sketch were all written down at the time of making the sketch at the dictation of Yusuf bin Sleiman, and I was careful to get him to look along the compass sights in order to avoid mistakes. The synonyms were given me by him also, but it is interesting to note that although the name Gunong Tahan was recognized, he and the other inhabitants called the mountain Gunong Rotan. They also knew it as Gunong Ulu Tanun on account of the S. Tanun, so I was informed, rising on its flanks. This raises an interesting question about the Kelantan-Pahang boundary, which is determined by the watershed of the Kelantan and Pahang Rivers. The exact boundary will not be fixed until the country is surveyed in detail and it will probably be difficult to define on the west side of the Tahan Range, since the country between the Tanun and the Kelantan drainage is almost flat. The watershed runs about east and west, however, and is said by the Cherual Malays to follow on up to the summit of Gunong Ulu Kamua. On the west side of the range the drainage south of Gunong Ulu Kamua goes, they say, into the Tanun on the north and the Kechau on the south. The course of the Tanun near Cherual certainly supports this statement, and also the statement that it rises on Gunong Tahan. On the east, however, there is reason to suppose that the Kelantan-Pahang boundary runs southward along the Tahan Range as far as Gunong Tahan, and then turns eastward as the watershed of that great tributary of the Pahang River, the S. Tembeliug.

The country between the Cherual limestone hills and the Tahan Range is gently undulating, and it appeared to me that a great mistake has been made in attacking the mountain from the Tembeling side. Waterstradt is the only traveller I know of, who has tried the ascent from the west, if I understand his account of his journey correctly. By this route one could be at the foot of the range in four days easily from Lipis, whereas the journey from Lipis to Kuala Teku takes at least six days. Moreover the Tanun has few rapids, whereas the Tahan is barely navigable for the smallest boats.

TAHAN AS A HILL-STATION.

This comparison of routes leads on to the question of the utility of the Tahan Range as a hill-station. In an appendix to the account of the 1905 expedition in Vol. iii. of the Journal of the F.M.S. Museums, I ventured to say that the range would make an ideal health station (p. 74). A reviewer found the remark a source of humour at the time, but now that the establishment of a health-station is actually being discussed, my critic, if still in the country, has probably changed his mind. Anyone who knows the cramped conditions of our existing hill stations would see quickly the enormous advantages of the Tahan Range; the great expanse of open and comparatively flat country, the elevation (between 4,000-5,000 feet), and the abundance of water. Instead of a monotonous walk along the same jungle paths day after day, shut in by huge trees, on the Tahan highland a delightful holiday would be possible roaming over a fair substitute for moors. Perhaps distance has tended to lend enchantment since 1906, but others who have visited the range seem to be of the same opinion as myself, with the result that, as already stated, the establishment of a hill-station is being discussed. The feasibility of the plan depends on the extension of the Pahang Railway, and I hope that that extension will pass between the Cherual limestone hills and the Tahan Range, connecting with a funicular railway up to the highlands.

GUNONG RIAM

Gunong Tahan, far away from roads and, at present, from a railway, has been visited by few Europeans, and even seen by few Europeans. Gunong Riam, better known as Gunong Kerbau, on the other hand, is a familiar sight to dwellers in Kinta, raising its sharply outlined ridge high above the little town of Tanjong Rambutan and plainly visible from the greater part of the district. He would be an unobservant traveller, who on a clear day failed to notice its giant form while passing Tanjong Rambutan in the mail-train.

Although deprived of its pride of place as the supposed highest mountain in the Peninsula, Gunong Riam always attracted me as a climb for several reasons, and in February of this year (1912) I made the ascent. Since my trip to Tahan I had climbed Ulu Kali in Selangor and Berembun in Perak, but a long interval had elapsed since the last long mountain trip, which perhaps was the reason that I relied on a Malay Penghulu to make necessary preparations for me at Tanjong Rambutan, so that I might go to the town by train and start up the mountain without delay. The Penghulu was approached through the proper channel and promised to have a guide, men, and elephants ready on a certain day. I had been told that elephants were always taken part of the way and therefore asked the Penghulu to hire them, although travelling with them is to court misery. On the appointed day I proceeded to Tanjong

Rambutan and found nothing whatever ready. I then had to make my own arrangements, and having heard, fortunately, that elephants could go but a short part of the way, looked out for a guide and men only. Five days later a heavy fee had secured a guide, who left his work to accommodate me, and six Malays to carry baggage, including a small tent. Everything was ready by 8 a.m. and having already committed one foolish mistake by putting my trust in a Penghulu, I proceeded to make another by allowing the six men to go by a so-called short cut over a hill, while Midin, the guide, and myself, with a Chinese boy and a Malay employee, took the regular route up the Kinta River. We were to camp that night near Kuala Termin, a short march but a recognized halting-place, like the first camp on the way to Tahan. Never shall I forget that day. The details would be painful to relate: suffice it to say that after waiting four hours for the men to emerge from their "short-cut," I found them cooking rice by the side of the Kinta River, and, of course, complaining about the weight of the baggage. The rice was not eaten. After this experience I displayed a fondness for the society of these Malays that surprised them, and they were always in front of me until the last day of the descent. One of these gentlemen appears in Fig. 1 of Plate IV. The size of the bundle he is carrying is worth nothing. He was an ex-police man. I was not surprised to hear it.

The camp near Kuala Termin was only about 700 feet above Tanjong Rambutan and situated on the right bank of the Kinta River. Midin was expecting some Senoi men to join us there and had asked me to bring tobacco and rice to give to them as pay. The Senoi, five of them, were there on our arrival, and helped themselves liberally to the articles mentioned and then went home. The necessity of six Malays and five Senoi had not dawned on me when this happened, but nevertheless the conduct of these men, whom we never saw again, and could not trace to their houses, seemed reprehensible. However, by the following morning Midin had caught three others, and we set out up the Termin a party of thirteen. The Malays, as usual, when Senoi men are with them, made the latter carry the greater part of the baggage. It was as well, because if I had had the Malays only we would never have arrived at the top.

On the second day we passed by a Chinese tin-stealers' *kongsi*, and then rose to 2,900 feet above Tanjong Rambutan, camping by the Batu Salik, a huge mass of granite with a small gully close by wherein is the cross erected in memory of J. A. A. Williams, who had ascended the mountain and died from fever on that spot in 1892. The march to Batu Salik was another short march, and on the following day I had the prospect of getting the men up the remaining four thousand odd feet in one march. It does not sound difficult of accomplishment, but anyone who had seen my Malays would have understood my anxiety. We started at 8 a.m. and I arranged that the men were to climb five hundred feet at a time

with a rest of five minutes between each instalment. Shortly after leaving camp one of the men sat down, but got up again when the programme was explained to him. It proved an excellent plan, for we arrived at the Trigonometrical Survey beacon on the summit at 12.40.

Very soon after leaving Batu Salik we emerged from the dense jungle onto the ridge marked by the dotted line in Fig. 2 of Plate III, which leads up to the summit. The vegetation on this ridge is low and in several places one can walk along enjoying a perfect view on either side over the bushes (vide the foreground in Fig. 1 of Plate IV). On other parts of the ridge, however, we plunged through vegetation such as that shown in Fig. 2 of Plate IV and there was one part where we walked in a bower of mosses hanging from the short trunks and branches of stunted trees.

The most noticeable point about the vegetation was the abundance of rhododendrons and large pitcher plants. A bunch of rhododendrons is shown in Fig. 2 of Plate IV. As I write this I am in England and I was very interested on landing in comparing garden rhododendrons with those I saw on Riam. The flowers of the garden plants are perhaps a little finer individually, and they certainly grow in larger clusters. On account of the small size of the plants compared with the Malayan examples they make a better show of bloom, but the rhododendrons on Riam are nevertheless a beautiful sight and with judicious pruning could probably be greatly improved.

There were several other strange flowers, including a ground orchid, but nothing of much note as far as beauty was concerned. A very slender bamboo occurs that is probably the famous Malayan "Bulu berindu", but I have never heard a Malay admit the identity, although I have seen this slender bamboo elsewhere. Nor have I ever succeeded in persuading a Malay to take a piece down to a Kampong to try the affect. I remember once that after seeing the bamboo on another mountain I discussed the matter with one of the men. He decided that the bamboo we had seen could not be the "Bulu berindu" because it was so easy to obtain. The real "Bulu berindu" always had thunderstorms and thick clouds around it, while dragons and other ferocious creatures guarded the approaches. I met no dragons on Riam.

Fig. 1 of Plate IV shows the beacon on the summit of Riam. As can be seen from the photograph the mountain is an exposed place on which to camp and I do not remember many more uncomfortable nights than that spent there. The weather was unfavourable. It was clear when we arrived, but about 2 p.m. it began to rain and blow and continued doing so until 10 p.m. My tent was slung under the beacon but the cold wind found me out, and even after 10 p.m. it was bitterly cold. I put on two flannel shirts and my jungle clothes, including boots and putties, and crept under two blankets but still felt chilled. At 4 p.m. the temperature was 58 Fahr. What it dropped to afterwards I do not know, as I was too

cold to get out of bed and look. Judging from the comparative comfort of sleeping in the open, and on the ground, in another country when the thermometer showed 12" of frost, the minimum on Riam that night might have been zero, but I do not suppose it fell below 54° Fahr.

I am unable to describe the magnificence of the view from Riam. I doubt if anyone could do justice to it. The great peaks around me in the main range of the Peninsula, and the cloud-filled valleys made a far grander panorama than the view from Tahan. One thing I will try to describe. Some time after midnight I woke up and saw the Southern Cross shining brightly. Later a crescent moon and a brilliant planet rose, showing up the dark outlines of Gunong Gyang and Yang Blar. Then these paled as the dawn broke and masses of pink clouds became visible in the valleys. The light grew in the east with a wonderful glow of red and orange, and, to my delight, showed up with perfect definition the distant Tahan Range as a black silhouette against the coming sunrise. The range was far, far away, but so clearly was it seen that it might have been a tiny ridge but a mile or so distant. Then as the sun rose above the horizon, the Tahan range disappeared in a shimmering blue haze, and the glory of the morning lit up all the surrounding peaks. I have never seen anything to equal that sunrise on Gunong Riam, and do not expect to see anything to equal it, but words cannot describe it adequately.

I have referred to this mountain as Riam although it is generally known as "Kerbau," and must now explain why. I had heard long ago that Riam was the correct Malay name but had also been told that a "Kerbau" had nothing to do with a water-buffalo, but was a corruption of a Senoi word meaning mountain, so that "Gunong Kerbau" would mean simply "Mountain Mountain." This I thought might explain the appearance on the new map, published by the Society, of the name "Korbu" for this mountain, which I had not heard before; but I learned from Midin, who had been up the hill on three previous occasions, and the Senoi men, that I was on the wrong track. The local Senoi word for mountain is, I was told, "*Jelmul*," which cannot possibly be connected with "Kerbau" or "Korbu." The Malay name for this mountain is "Riam" and always has been so; but once many years ago a Frenchman, not knowing this, ascended the mountain from Sungei Siput by a route following a stream called the S. Kerbau and therefore called the mountain "Gunong Kerbau." Hence, if my information is correct, "Gunong Kerbau" is a misnomer of French origin. I have some old literature that leads me to suspect the identity of the Frenchman, but the matter is not of sufficient importance to discuss here.

On our way down from the mountain we had an amusing experience at the tin-stealers' Kongsì, where we slept for the night. The tin-stealers had decamped at our approach and we found a commodious house wherein to cook our food, dry clothes, and rest.

But we thought it likely that the Chinese tenants might return at night to enter into possession again, not knowing we had elected to remain, and therefore, when about 10 p.m. we were aroused by a shout outside and the light of a torch, there was some excitement. I sat up and saw a fierce looking man advance and shake the bamboo door violently. He had a large spear with him, and I quickly realized that he was a Senoi. Then when the door was opened as romantic a group of human beings came in as could be imagined. The first to enter was the man with the spear. He also had a blowpipe, and was a short, thick-set, middle-aged man with a fine though savage face, who came in unconcernedly and sat down by the remnants of a fire. After him came two little children, two minute dots of savagery with timid mien and hesitating steps. Last came the mother, a by no means uncomely Senoi lady, left to straggle in as she thought fit. What this family was doing abroad in the jungle at night I do not know. They spent the night in the Kongsí and went their own way next morning.

The Senoi youth in Fig. 2 of Plate IV was one of the men who came with me. I photographed him as an exceptionally pleasant type of savage. Some of my anthropological friends, if they saw him, might say that his pleasantness, and cleanliness showed the contamination of civilization. For myself, the pleasanter and cleaner a savage is, the better I like him.

As a possible health resort Riam is useless, as it consists of one sharp waterless ridge. As a mountain well worth visiting, however, I commend Gunong Riam to all who dwell in Kinta. Two days good walking from Tanjong Rambutan should bring one to the top, and although Malays may talk of the natural difficulties of the journey, no one but a cripple would be stopped by them. The only difficulty is the transport of baggage, and if anyone determines to ascend the mountain, I would advise them to send for Senoi from the Ulu of the Kinta, who would also act as guides. The Malays of the neighbourhood are not very much use, although I must say that one man with me worked well for his wages. Apart from transport troubles I regard the ascent of Riam as the easiest climb I have had in the Peninsula.

COMPARISON OF THE STRUCTURE OF GUNONG TAHAN, GUNONG RIAM AND OTHER PENINSULAR MOUNTAINS.

In conclusion I will deal very briefly with the structure of Gunong Tahan, Gunong Riam, and other mountains in the main range. It is common knowledge that the main range is mostly composed of granite. Granite is a rock that solidified at a considerable depth from the surface. In the case of the main range of the Peninsula the granite rose in a molten state in the crust before solidifying, the rise being rendered possible by the folding of stratified rocks above into an arch, or anticline, of great length. Two at least of these anticlines were formed at the same time, or

about the same time, which I have called the Main Range Anticline, and the Benom Anticline. As these arches were formed, much of the rock fell into the molten granite, but when the latter consolidated, stratified rocks remained above. Much later in the earth's history denudation laid bare the granite cores below the remains of these anticlines, carving out the main range and the Benom range. In time denudation will cut down into these granite masses. How far have they cut down already?

It is obvious that at some period of the process of denudation the highest peaks would show remains of the superincumbent stratified rocks. At such a time a large part of the surface of the granite core would be visible. In the case of the main range there is some reason to suppose from the evidence of the distribution of tin-deposits that denudation has not gone far beyond this surface of the core of granite, and it is very interesting to find, as de Morgan noted in the eighties, that the summit of Riam is composed of altered stratified rocks, phyllites and quartzite. On this, the highest peak of the main range, there is then a remnant of the superincumbent stratified rocks, corroborating the other evidence of denudation not having advanced far into the granite mass. I expect too that stratified rocks will be found on Gunong Gyang, on Yang Blar, and other high peaks in the neighbourhood. We may regard these rocks on Riam as a remnant of the "lid of the Peninsula," which, when removed, revealed the vast wealth of tin-ore below.

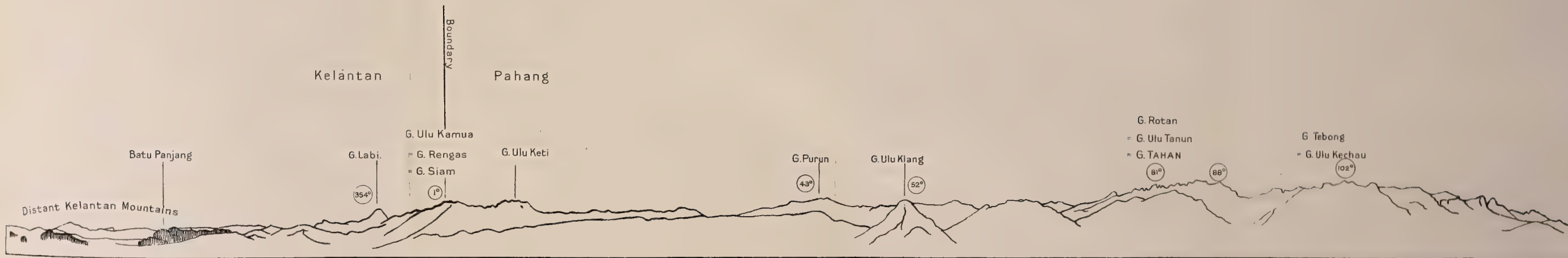
Riam, then preserves for us a portion of this lid. Lower peaks in the main range that I have ascended, Gunong Ulu Kali and Gunong Berembun, have been stripped of these rocks and show granite only, as far as we know.

Gunong Tahan however, and the Tahan range generally, although connected with this folding, fall into a different category. A glance at the map shows that the Benom Anticline lies parallel to the Main Range Anticline. Between the two anticlines the east limb of the latter and the west limb of the former meet, and when they meet we find a range of hills formed of quartzite and conglomerate. These rocks are the younger members of the two arches, and we expect to find them of course on the east side of Benom as part of the east limb of the Benom Anticline. They are there, forming a great belt of hilly country striking through the centre of Pahang and including the Tahan range, which is on the western border of this belt.

The Tahan range, then, including Gunong Tahan, is part of one of the two great arches.

Gunong Riam is capped by a small remnant of the other of the two arches, but is chiefly composed of granite.

Gunong Ulu Kali, Berembun, and the majority of the peaks in the main range, as far as we know, retain no trace of the arch, but consist of the solid granite core only.

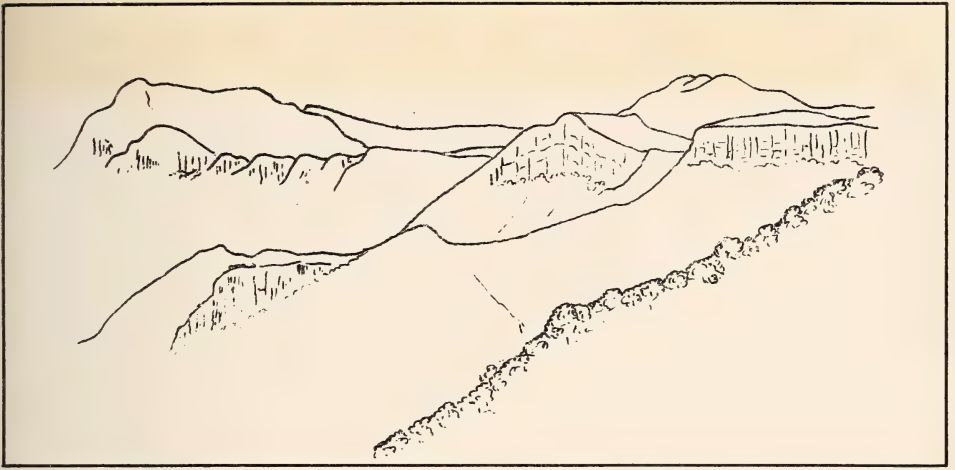


Limestone Hills shaded.

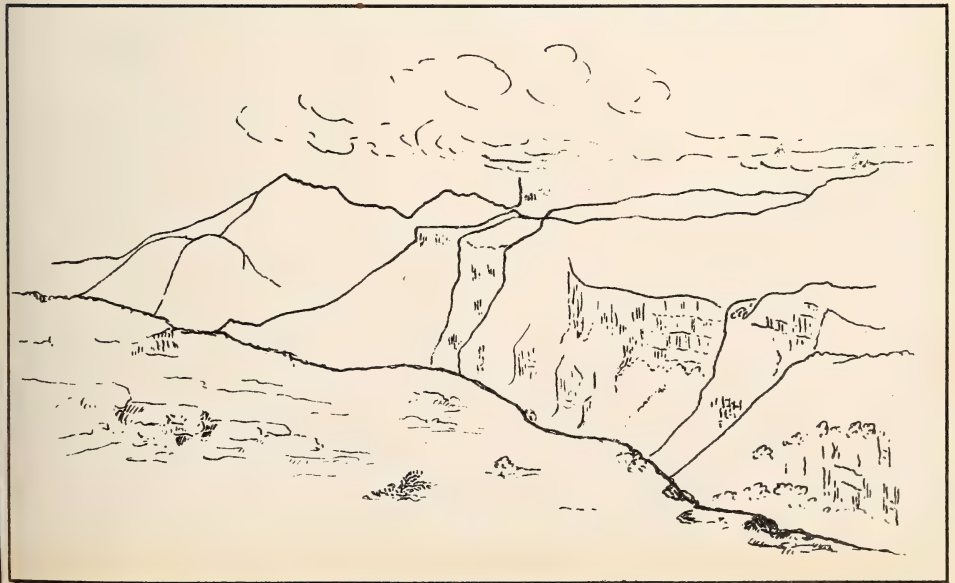
Hill-Sketch of the TAHAN RANGE from the north end of the Cherual Limestone Hills in the Ulu of the S. Tanun.

The names are given as taken down at the time

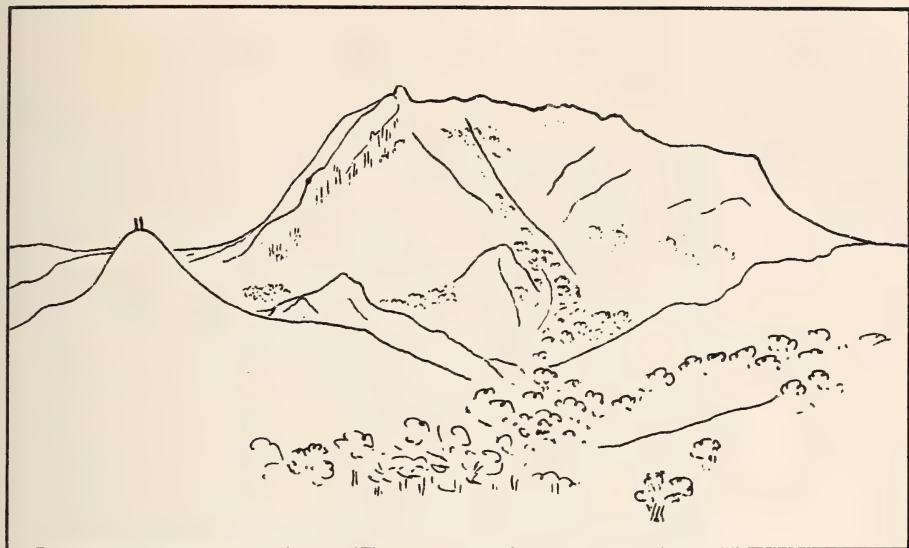
of making the sketch from YUSUF BIN SLEIMAN of Kampong Cherual.



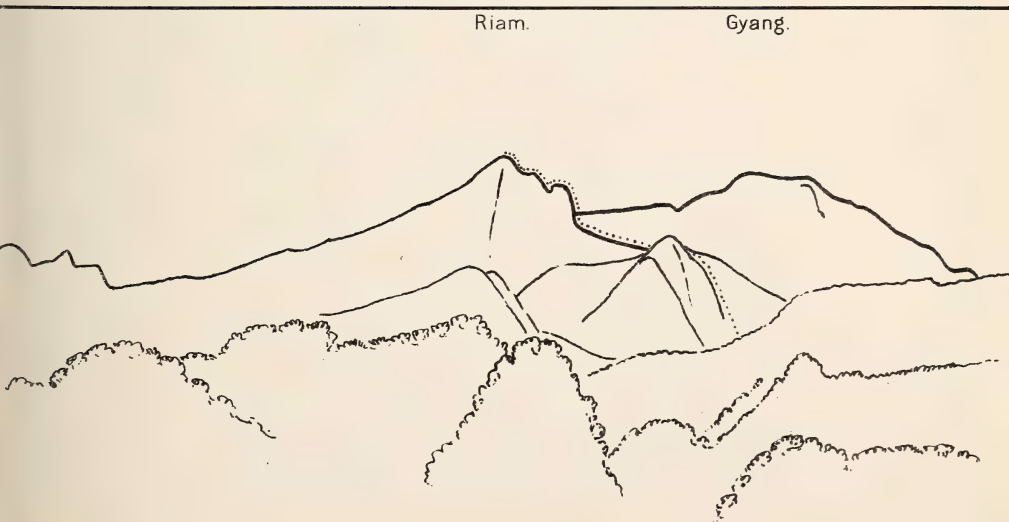
1. Sketch shewing plateau-like top of G. ULU KECHAU and
Cliffs of Sandstone. In foreground valley of Teku.



2. The Valley of the S. Teku. View on the way to
Gunong Tahan.



1. G. TAHAN from the elevated plateau-land
of the Tahan Range.



G. RIAM & G. GYANG from the Ipoh-Tambun Road.
Part of the route up Riam is shown by dotted lines.



1. The Summit of Gwnong Riam.



2. Senoi youth with rhododendrons
on Gwnong Riam.

EXPLANATION OF THE PLATES.

- Plate I. Hill Sketch of the Tahan Range.
Plate II. Fig. 1. Gunong Ulu Kechau.
Fig. 2. Valley of S. Teku.
Plate III. Fig. 1. Gunong Tahan.
Fig. 2. Gunong Riam and Gunong Gyang.
*Plate IV. Fig. 1. Summit of Gunong Riam.
Fig. 2. Senoi Youth.

*Erratum : for 'Gwnong' read 'Gunong'.